PIPE LINE DEPARTMENT NUMBER

THE TEXACO STAR

Vol. 1 JULY 1914 No. 9

PIPE LINE DEPARTMENT STAFF

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HOUSTON

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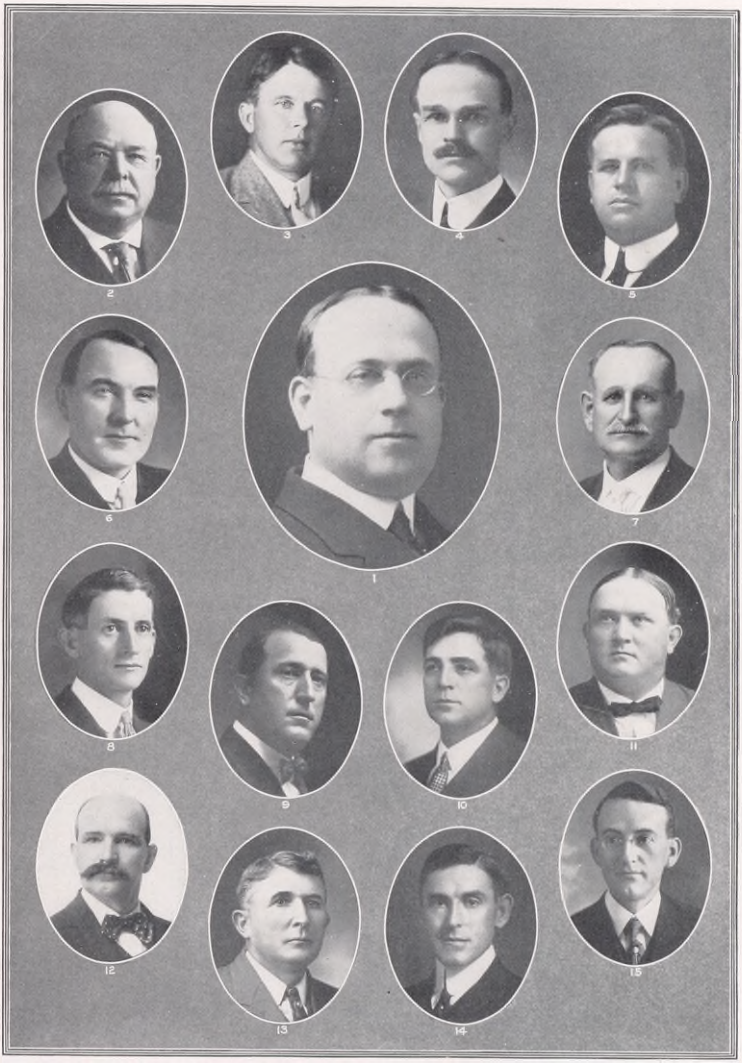
THE man for whom every employer of men is searching, everywhere and always, is the man who will accept the responsibility for the work he has to do—who will not lean at every point upon his superior for additional instructions, advice, or encouragement.

There is no more valuable subordinate than the man to whom you can give a piece of work and then forget about it, in the confident expectation that the next time it is brought to your attention it will come in the form of a report that the thing has been done. When this master quality is joined to executive power, loyalty, and common sense, the result is a man whom you can trust.

On the other hand, there is no greater nuisance to a man heavily burdened with the direction of affairs than the weak-backed assistant who is continually trying to get his chief to do his work for him on the feeble plea that he thought the chief would like to decide this or that himself. The man to whom an executive is most grateful, the man whom he will work hardest and value most, is the man who accepts responsibility willingly.

—*Gifford Pinchot.*

PIPE LINE DEPARTMENT STAFF



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TEXACO STAR

VOL. I JULY, 1914 No. 9

PRINTED MONTHLY FOR DISTRIBUTION TO EMPLOYES OF
THE TEXAS COMPANY
"ALL FOR EACH—EACH FOR ALL"

ADDRESS: TEXACO STAR, 1101 CARTER BUILDING, HOUSTON, TEXAS

THE account of the Pipe Line Department offered in this issue deals with the most characteristic feature of the oil business—the petroleum trade being peculiarly distinguished from other industries by the special mode of transporting its crude material. The pipe line has been the main factor in the enormous development of the oil industry, the present magnitude of which is indicated by the fact that, if all our crude oil had to be transported by the railroads in tank cars, there would be means for very little other traffic on the existing railways of the United States. The great trunk lines for transporting crude petroleum, with their feeder lines from every point of production, give, also, a surpassing promptness and completeness to the transportation service for this industry such as is enjoyed by no other. Both the producers and the manufacturers in other industries are subject to delay and uncertainty for needed freight cars, and only large dealers can get track facilities. The largest dealer in other lines who wanted a railroad siding constructed at his plant waits perhaps months before his need is supplied; but as soon as the smallest adventurer, wildcatting on the verge of an oil field, strikes oil, he will within the next day or two see the line crew of the nearest pipe line laying pipe to meet his little supply. Thus all tributaries, large and small, are added together and combine to fill the great arteries, whose constantly throbbing pumps drive the main stream to distant refineries and seaboard terminals.

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The first annual meeting of The American Petroleum Society will be held in New Orleans, October 16 and 17, 1914; and its second annual meeting is to be held at the Panama-Pacific International Exposition in San Francisco, October 25 to 30, 1915.

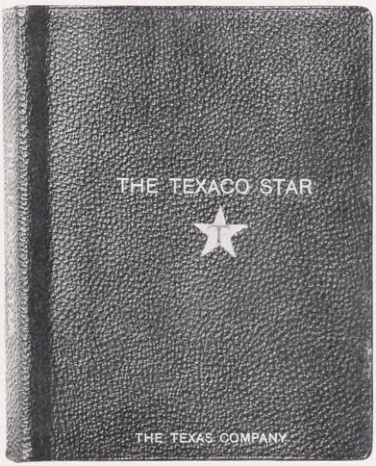
The American Petroleum Society was organized last September to study all phases of natural gases and petroleums, including origin, conservation, drilling, production, storage, transportation, refining, and specifications for refined products. When it is considered that in the United States alone there are produced each year petroleums and natural gases having a value of more than $200,000,000, the need of critical and comprehensive study of all conditions concerning this vast industry is evident. There is an enormous waste of natural gases which could be prevented by improved methods of drilling, and there is great waste of crude oil due to poor methods of production and handling.

At the San Francisco meeting in 1915 it is anticipated that all the petroleum societies in the country will participate in a great congress. Also, it is probable that the International Petroleum Commission will hold its 1915 meeting at the same time in San Francisco. The International Petroleum Commission represents the petroleum industries of the whole world, and at its meeting the foremost petroleum technologists and scientists of all countries will congregate.

★ ★

Speak up!—if you want a binder for your file of the *Texaco Star*. We hear from Mr. Tipper that many persons seem to be postponing their orders until the binders are ready for delivery. Before placing the binders in stock, he must

know approximately the number of each sort that will be immediately required. As stated in the previous notice, every one who wants a binder to preserve his file of the *Texaco Star* should send his name and address, with statement of the style of binder desired, to Mr. H. Tipper, Manager Advertising Division, The Texas Company, 17 Battery Place, New York, N. Y. There is no need to send the money at once, but send your order *without delay*, if you want a binder. They will then very shortly be ready for delivery.

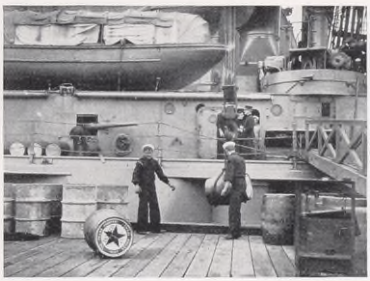


Mr. Tipper sends a photograph of the limp leather binder. The design and lettering of the cloth binder is identical. The lettering is in gold with embossed Red Star and Green T. We repeat the description and price of the respective styles:

The cloth binder is bound in green art vellum, stamped on side and back in pure gold leaf, very attractive, neat, and modern, made to contain 12 issues of the *Texaco Star* without bulking. Books as flat as though not bound. Requires no punching of holes, simply a knife slit in the back of the book. Arranged so simply that any book can be taken out and replaced without difficulty. These will be sold at 60 cents.

The leather binder, made on the same principle, is genuine seal grain, lined with pure skiver. Price, $1.45.

The interesting photograph shown here was taken at the Boston Navy Yard while the *Nebraska* was taking on stores for active service in Mexican waters. The photograph is doubly interesting in view of the fact that it was taken by a newspaper man—an outsider—and not by anyone connected with The Texas Company. This photograph and another, much like it, were seen by an employe of the Boston office, who was alert enough to realize their value. He forwarded them to the Advertising Division office in New York. The Advertising Division got in touch with the photographer and bought enlargements, and is making good use of them in advertising Texaco lubricants in the technical magazines and by using one of them for a booklet covering Texaco Lubricants, which will be issued shortly.



This matter raises a point of some importance. If an outsider, not interested in the Company's business, can get photographs of such value, there is hardly any limit to the usefulness of photographs that could be obtained intentionally or accidentally by interested employes. In order to awaken interest in this matter and to encourage the taking of such photographs, the Advertising Division invites all employes of The Texas Company to submit snapshots of advertising value, and it will pay for such whenever one of sufficient value or interest to be used is received. Here is an opportunity, especially to all employes who have cameras, to help the Company and to earn a little money besides. Keep your eyes open for advantageous views and send the photographs to the Adver-

tising Division of The Texas Company, 17 Battery Place, New York, N. Y.

★ ★

The following letter from Dr. Canfield, director of the Texaco Correspondence School, answers all correspondents who have inquired about opening the services of the school to all districts and departments of The Texas Company. While there is no wish to impose the course of instruction upon anyone, it is offered to every employe of The Texas Company who desires to undertake the work. Our associates in far-away South Africa have already joined the school. The enrollment is now about seven hundred. Applications should be addressed: Texaco Correspondence School, The Texas Company, 17 Battery Place, New York, N. Y.

Editor of the *Texaco Star*:

The editorial in the last issue of the *Texaco Star* on the Texaco Correspondence School was naturally read with great interest at this office. In view of the facts stated in the editorial, it occurred to me that the employes of The Texas Company might be interested in a statement concerning the purpose and policy of this school.

The school grew out of a plan formulated for the purpose of training a small group of new salesmen in the New York District office. Before the plan matured, however, the advisability of widening the scope of the school became apparent. Accordingly, a course was planned which would be of interest to the great mass of the employes of the Company, and which would include a treatment of the technical features of petroleum products, the mechanical principles involved in lubrication, production, refining, etc., as well as business organization and salesmanship. The original purpose, however, was not to be lost sight of. The first meetings were received with enthusiasm, and were attended by a capacity crowd, including not alone salesmen and station men, but also a large group of the office force, and even superintendents and managers of departments.

If the New York School proved a success, it was the plan to extend the service, in the form of a correspondence school, to as many of the employes of the Company as desired to take up the work. It seemed best, however, to start on a comparatively small scale; so the matter was presented to a meeting of the Northern Superintendents, who decided to establish the Texaco Correspondence School for their territory, the expense to be shared by the various districts.

The organization of the school is very elastic. If there is a demand for its extension, so far as we are concerned there is no reason why the demand should not be met. Already an arrangement has been made with the Export Department, whereby the lessons are being sent to the employes of The Texas Company, South Africa, Limited. Also we have had requests from individuals in the Southern Territory, and as a result have enrolled a few of the employes in the South. The enrollment at the present time is about seven hundred. Any very substantial increase would require additional clerical assistance, otherwise our present equipment is sufficient. It is by no means our desire to impose this educational work upon any employe or group of employes; at the same time, it is our aim to extend the privilege to all who are willing to undertake the course.

Let no one be deterred from taking the course by the fear that he will make a display of his ignorance. If all employes in the Company were high school or college graduates or experts in the oil business, there would be no need for such a school of instruction. On the other hand, this is an opportunity for those who do not know, to learn; and we assure them of our thorough co-operation. Moreover, all records are regarded as a confidential matter between those enrolled and this office. There is nothing to be lost by doing one's best; something may be lost by indifference, but for those who make the best of the opportunity offered there is every hope of gain.

Very truly yours,

L. H. Canfield,
Educational Director.

★ ★

The production of oil is often compared with mining, but over in Scotland petroleum is really mined. There are no oil wells in the Scottish field, because the oil does not occur in a fluid condition but in oil-soaked shale formations. The oil shale is almost as black as coal. It lies at a depth of about four hundred feet and is mined just as coal is mined. The rock brought to the surface is crushed into small pieces in crushing plants similar to coal breakers, and then the crude oil is squeezed out of the crushed shale. One ton of shale yields on the average about fourteen gallons of oil. The Scottish oil is put through four different processes of acid distillation. The deposits of oil-producing shale in Scotland are of enormous extent. The main field lies between Glasgow and Edinburgh, known as the West Calder field.

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Neither "system" nor "scientific management" is a definite commodity to be bought of any peddler or to be sent for to a mail-order house, and applied in the way in which the credulous read advertisements and doctor themselves with patent medicines. A lesson which mankind has appeared throughout history to learn with difficulty and to forget with facility, is that men are not of equal worth and weight for any good purpose and least of all for counsel and guidance. There are quacks and their victims in business, as in medicine and in education and in politics; and in each are the many who doctor them-

selves without the least comprehension of any need to understand the nature of their ailments and the available remedies. In the first place, however, as hygiene comes before medicine and men may learn to know and avoid common sources of some diseases and the certain injury following some practices, so in business there are some principles of organization and systematic precaution that might be learned by all intelligent men. For instance, there must be consistent policies in all branches of the same department and staff consultation and co-operation between different departments, or loss and perhaps disaster must follow; responsibility and subordination should be as direct and definite as possible; power to discipline should go with responsibility for results; costs should be known as distinctly as practicable; and current conditions should be known at short intervals. Principles such as these are fundamental; the business which defies or neglects them will soon need a physician.

Of course a business may be harmed by external violence (legislation, for instance) just as a man's body may be injured by assault and battery as well as by typhoid germs; but if a business has fallen 'sick,' usually there has been some deficiency or fault in management. In such a case candid self-examination and truly wise counsel are what is needed. Quack prescriptions and patent-medicine-ways of self-doctoring have nearly always made matters worse. Even good medicines may be misapplied, and a right diagnosis is the first and an essential need; a surgical operation, however deftly performed, does harm if the real trouble called for a purgative or for a tonic, nor will a good tonic supply a real need for a surgical operation.

The industrial world has undoubtedly profited from the wide attention to questions of systematic organization and management that has been aroused during recent years, and it is merely the common fate of every "movement" attracting general interest, that misconceptions and abuses should cause mixed results of good and evil. "Fools rush in where angels fear to tread." In every field where philosophy or science has been applied to guard or guide practical interests, ignorance, superficiality, and pretense have crowded into that field offering imitation wares, whether of material or of advice and counsel, misusing scientific terms as catchwords, and depending on screaming advertisement and reckless promises to reap where they have not sown.

Of one thing we may be sure, competent and faithful management is absolutely necessary for the permanent success of any business enterprise; without it, laborers would lose proper wages for toil and owners would lose the capital invested. If either laborers or investors should assume direct mass management, their business would plunge to ruin like a runaway locomotive. Mass action of any sort whatever can act beneficially only in holding free but responsible managers to account for results.

★ ★

If you are a pinhead nobody takes you seriously, and if you are a headpin you are stood up as a target and the whole world bowls at you.—*Irvin S. Cobb.*

BY THE CURB
James Stephens

There was a sparrow in the street,
And he was not a bit afraid;
He flew between a horse's feet,
And ate his supper undismayed;
I think the horse knew very well
The bird came for the grains that fell.

For his eye was looking down,
And he danced the corn about
In his nose-bag, till the brown
Grains of corn were tumbled out;
And I fancy that he said,
"Eat it up, young Speckle-Head."

The driver soon came back again,
And he climbed into the dray;
Then he tightened up the rein,
And the sparrow hopped away;
But when the horse's ribs were hit,
The sparrow didn't care a bit.

EFFICIENCYGRAMS

Self-discipline and self-control are the beginnings of wisdom and power, and they must have their roots in self-respect.

Cheerfulness keeps up a kind of daylight in the mind and fills it with a steady and perpetual serenity.—*Addison.*

Don't worry unless you have nothing else to do. But—

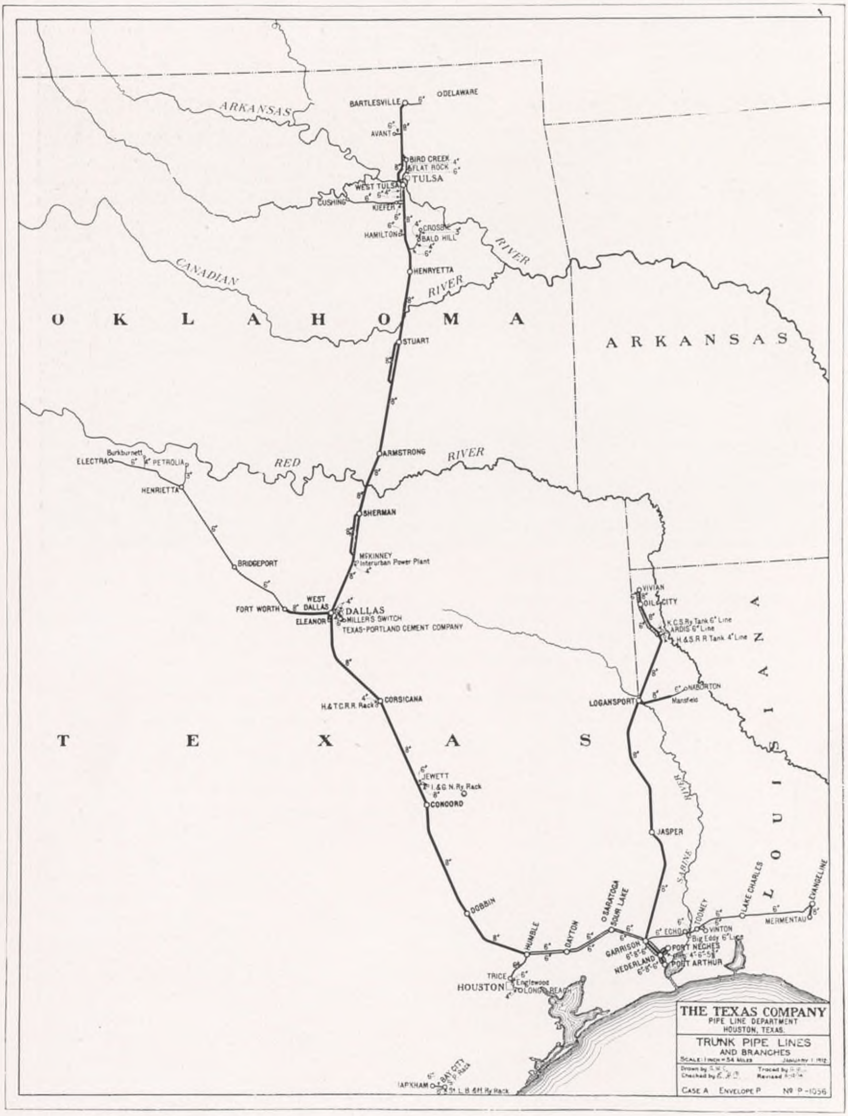
Taking it easy is often the cause of getting it hard.

If you are in trouble and want to find the fellow who is to blame for it,—first, consult the looking glass.

The architectural design of the new home office building of The Texas Company was shown last month, with a general description of the plans, including internal arrangements. Believing that everyone connected with the Company will be interested in reports of progress, we intend to show each successive month a photograph of the rising structure. This is the first of the intended series. It was taken June 25. Excavation was begun on June 8. The first batch of concrete was poured June 27.

The building will have frontage of 102.2 feet on San Jacinto Street (shown in foreground on the right) and 132.7 feet on Rusk Avenue (shown on the left). Directly opposite on San Jacinto Street is the new Federal Building.

THE artistic leaflet sent with each copy of the *Texaco Star* this month is an announcement concerning Ursa Oil intended primarily for the U. S. Navy. It will be interesting, however, to all of our readers. Texaco Ursa Oil has done as much as any one product to give The Texas Company its high standing in the art of manufacturing and applying lubricating oils. It has changed even the theories of big turbine lubrication, and has set a great pace for all makers of lubricating oils. Especially in the operation of war ships it has won a place never before held by any oil. For some time past we have been lubricating many of the ships of the U. S. Navy, but now The Texas Company has the Navy's entire contract. The work Ursa Oil has done has been so picturesquely wonderful that it was deemed appropriate to give a short account of the oil in the form of an announcement to be sent to the officers and men of the Navy. The fact that Ursa Oil is named after the Ursa Constellation containing the Great Bear and the Little Bear, and the poetic treatment thus available for artistic imagery, led the Company to engage a well known genius for allegorical painting, Mr. Raymond Perry of New York City, to work out embellishing designs for the announcement. The result meets the high expectation, and the beautiful leaflet will doubtless immediately engage the attention of all to whom it will be sent. Then must follow appreciation of the substantial importance of the story of Ursa Oil.


OKLAHOMA
ARKANSAS
TEXAS
LOUISIANA
ARKANSAS RIVER
CANADIAN RIVER
RED RIVER
SABINE RIVER
BARTLESVILLE
DELAWARE
AVANT
BIRD CREEK
FLAT ROCK
TULSA
WEST TULSA
CUSHING
KIEFER
HAMILTON
CROSBIE
BALD HILL
HENRYETTA
STUART
ARMSTRONG
ELECTRA
Burkburnett
PETROLIA
HENRIETTA
BRIDGEPORT
SHERMAN
McKINNEY
Interurban Power Plant
FORT WORTH
WEST DALLAS
DALLAS
ELEANOR
MILLER'S SWITCH
TEXAS-PORTLAND CEMENT COMPANY
CORSICANA
H.&T.C.R.R. Rack
JEWETT
I.&G.N.Ry. Rack
CONCORD
DOBBIN
HUMBLE
DAYTON
SARATOGA
SOUR LAKE
GARRISON
NEDERLAND
PORT NECHES
PORT ARTHUR
ECHO
VINTON
Big Eddy 6" Line
TOOMEY
LAKE CHARLES
MERMENTAU
EVANGELINE
TRICE
Englewood
HOUSTON
LONG BEACH
BAY CITY
MARKHAM
VIVIAN
OIL CITY
K.C.S.Ry. Tank 6" Line
ARDIS 6" Line
H.&S.R.R. Tank 4" Line
LOGANSPORT
NABORTON
Mansfield
JASPER
THE TEXAS COMPANY
PIPE LINE DEPARTMENT
HOUSTON, TEXAS.
TRUNK PIPE LINES
AND BRANCHES
CASE A ENVELOPE P Nº P-1056

Saratoga Oil Field, Hardin County, Texas.

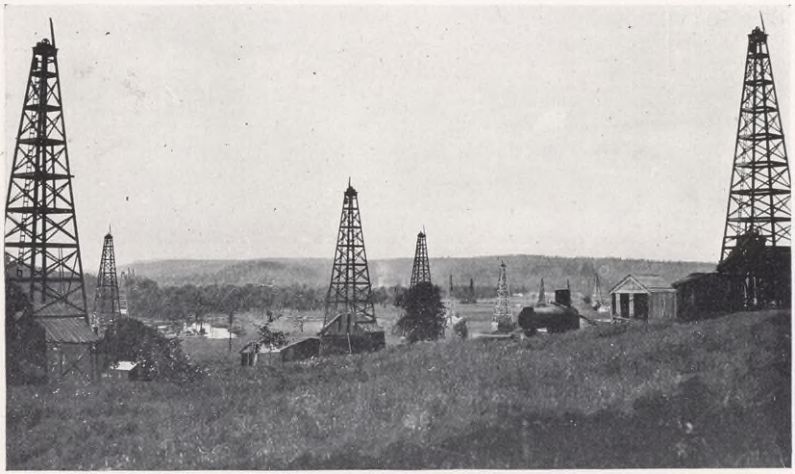
TRANSPORTATION OF CRUDE PETROLEUM

T. J. DONOGHUE
Second Vice President

The transportation part of the oil business has developed to a point where all crude oil produced is handled promptly and satisfactorily by pipe line, except during times of excessive flush production. Excessive production sometimes occurs in the loose sand pools of Texas, Louisiana, or Oklahoma where producers, in their eagerness to prevent operators on adjoining properties from draining the pool, drill a large number of wells, resulting in over-production that taxes pipe line facilities. This condition, however, does not prevail long, and as soon as the output is reduced to a reasonable amount the producer is well taken care of. Under normal conditions the pipe lines take care of every barrel of oil tendered, either putting it into storage tanks or transporting it to the refineries and other consuming points.

During the early days of the industry in America, crude petroleum was first transported in iron-hooped barrels made of oak. These barrels, which held from 40 to 42 American gallons, were carried by teamsters to Oil Creek and the Allegheny River, at that time the only channels of conveyance to the refineries, at an enormous cost, amounting in some cases to as much as three dollars per barrel for a distance of four miles. Further difficulty and expense occurred during the river transport. The empty boats were towed up Oil Creek by horses which waded in the stream, and, when loaded, were carried down whenever sufficient water was produced by a freshet, or could be obtained by damming the stream. Large numbers of boats were employed in this traffic, and as a whole fleet of them proceeded down the stream together great loss from collision and grounding ensued. As many as 40,000 barrels were brought out of the creek on one of these freshets, but the average was between 15,000 and 20,000. At Oil City, the oil was transferred to larger boats. At one time over 1,000 boats, 30 steamers, and about 4,000 men were engaged in this traffic. During the freshet of May 1864, a jam occurred at Oil City which resulted in the loss of from 20,000 to 30,000 barrels of oil.

An ancient pipe line in India was wholly made up of bamboo stems, but as the loss by leakage was great it was soon abandoned. The first suggestion for the construction of a pipe line for transporting petroleum in America appears to have been made by General S. D. Karns, of Parkersburg, West Virginia, who, in November 1860, proposed to lay a six-inch line from Burning Springs to Parkersburg, through which the oil would flow by gravitation to the Ohio River, a distance of 36 miles. This line was never laid; but in 1862 Mr. L. Hutchinson, of New York, laid a line on the Tarr Farm to convey the oil over a hill to the refinery on the syphon principle, and a year later constructed another, three miles long, from the Sherman well to a railway at Miller Farm. The latter



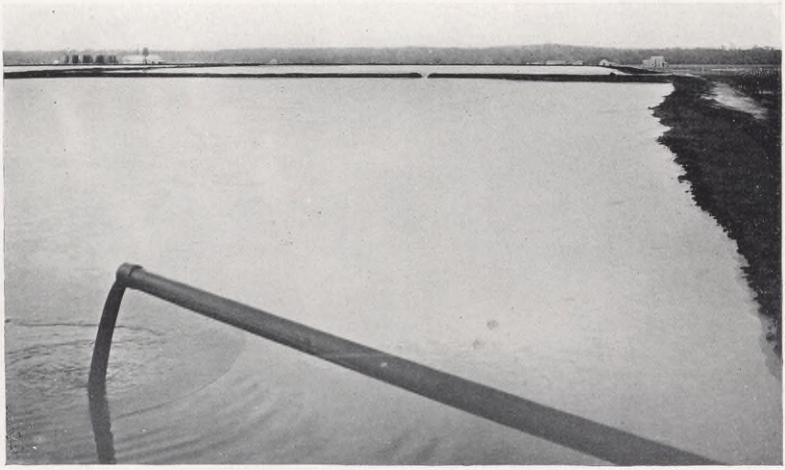
Glenn Pool, Oklahoma, August, 1907.

line was provided, at intervals of every 50 or 100 feet, with air-chambers to equalize the pressure; but the principal defect which rendered this and the previous attempt unsuccessful was the excessive leakage at the joints of the pipes.

The first successful pipe line was laid in 1865 by Mr. Samuel Van Syckle, of Titusville, the main improvement being in joining the sections of the pipe by carefully fitted screw-sockets. The pipe was laid two feet underground, and was four miles in length. In 1865 to 1866, Mr. Harley constructed a pipe line between Benninghoff Run and Shaffer Farm; and, later on, he founded the Pennsylvania Transportation Company, and constructed a pipe line from the Pennsylvania oil fields to the seaboard. In 1875 a four-inch pipe line about 60 miles in length was laid from the lower oil country to Pittsburgh, and by 1876, the opposition of teamsters and others having been overcome mainly by rigorous punishment of those who tampered with the pipes, eight or nine distinct pipe line companies were in operation in the oil region.

Up to 1876 the oil was largely refined in the neighborhood of the wells, but it was found that the important refineries at Cleveland, Pittsburgh, Buffalo, Boston, New York, Philadelphia, and Baltimore were better situated for the disposal of the burning oil and other products of distillation, and the conveyance of crude petroleum to these centers rapidly acquired importance. From 1878 to 1882 the building of trunk lines to the seaboard was continuous, and the refining of oil in the oil regions either remained stationary or was in a large measure discontinued, while on the seaboard and lakes large and extensive refineries were erected. Since that time the pipe lines have kept pace with other branches of the industry, and systems now traverse the States of Texas, Louisiana, Oklahoma, Kansas, Arkansas, Missouri, Iowa, Illinois, Indiana, Ohio, Pennsylvania, New York, West Virginia, Kentucky, Maryland, New Jersey, and California. All of these systems connect with lines having ocean terminals as their objective point. In addition there are local pipe lines in Colorado and Wyoming. No accurate data are available as to the total trunk line mileage in the United States, but it is at least 20,000 miles, in addition to several thousand miles of gathering lines in the various fields.

The Texas Company's pipe line operations are confined to the States of Texas,



Gusher flowing into earthen tank.

Louisiana, and Oklahoma, where it operates about 1,500 miles of trunk lines and about 1,000 miles of gathering lines, handling 60,000 barrels of crude per day.

The pipe line is the connecting link between the producer and the refiner. As a rule, however, the producer cares little what becomes of the oil after the pipe line takes it off his hands, and the refiner cares less where it comes from, so long as the pipe line keeps him supplied with the grade of oil he desires. It is the duty of the "pipe liner," however, to satisfy both the producer and the refiner, and they both consider him as a repository for complaints in case of trouble. He is a good fellow so long as he keeps the tanks of the first empty and those of the second full (running the producer's "BS," but delivering none of it to the refiner).

New oil fields are usually developed in isolated and sometimes almost inaccessable parts of the country, in some cases as far as fifty miles from a railroad, thus making it extremely difficult to handle the heavy machinery necessary for drilling and operating wells, and for constructing and operating pipe line stations. As soon as a new field is proven to be of sufficient importance to warrant the building of a pipe line, a survey is made from the field to the nearest point for a connection to pipe line system or terminal. Rights of way are then secured over the route selected, although sometimes the work of making survey and taking rights of way is finished in anticipation that a field will be developed, the actual construction of the line being held in abeyance until the field is proven. Careful estimates are made as to the amount of oil to be handled daily, and then pipe, tankage, pumping machinery, equipment, and material for station buildings is ordered. The selection of trunk line station sites is important. They are usually about fifty miles apart and, if possible, are located convenient to a supply of good water, near a railroad and a town where the station men can find a comfortable place to live. It is often necessary, however, to build stations in isolated places and in cases of this kind the company provides comfortable dwelling houses for employes.

As the business has developed, the size of the pipe has increased proportionately. A few years ago pipe lines of two-, three-, and four-inch pipe were not uncommon. Now, however, a six-

South Texas gusher.

inch line is considered the minimum size for a line of fifty or more miles. While six- and eight-inch comprise the greater proportion of the total mileage, there are some lines of ten-, twelve-, and fourteen-inch.

In constructing a pipe line, after the right of way is cleared of timber, brush, etc., the pipe is distributed by teams, the average haul being from five to ten miles, depending on distance from railroad stations. Next follows the laying crew. For an eight-inch line, one gang numbers about 75 men, consisting of a foreman, stabbers, tongsmen, ropemen, barmen, jackmen, etc. These crews are usually old time pipe liners—men of experience in the business, drifting around the country from one oil field to another, who, owing to the nature of the work, have learned to rely upon themselves. As the work proceeds many difficulties in construction are met and overcome in a creditable manner and often to a remarkable degree, considering the simple tools available, the isolated locations, and meager facilities. Sometimes pay day interferes with the continuity of the work; but living in a camp for thirty days at a stretch becomes irksome, and when a man gets some money he feels like going to town to replenish his wardrobe and make a few purchases. However, they come back in a few days and the work proceeds without interruption until the paymaster makes his next round.

No farmer would undertake to board 75 to 100 husky pipe liners, and hence a camp is provided, consisting of sleeping, dining, commissary, and cook tents. Comfortable cots are furnished and the commissary is stocked with the best the market affords. The camp is moved a few miles ahead of the crew about once in two weeks so they will not have to travel very far to the point where pipe

South Louisiana gusher.

is being laid. The cook is of course a very important man in the camp and upon his ability, willingness, and temperament depends largely the harmony and successful completion of the work. The writer recalls one incident where a riot was narrowly averted when a German cook refused to furnish eggs and tried to make an Irish crew eat meat on Friday. The ditching crew move in a different social circle and a separate camp is provided for them. The line is laid above ground, the crew screwing together 200 to 250 joints, of an average length of 20 feet, or 4,000 to 5,000 feet per day. Some slack is left in the line to take care of expansion and contraction. The ditchers follow the laying crew, and bury the pipe in a ditch 24 to 30 inches deep. When the line, or a certain section, is laid and ditched, it is tested with water at a pressure of from 800 to 1,000 pounds per square inch. This test is made to develop collar leaks and weak spots in the pipe, which are repaired or renewed before oil is pumped into the line.

A typical trunk line station of The Texas Company consists of pump house, boiler house, office, manifold house, and warehouse, of concrete construction, and at least two steel tanks of 37,500 or 55,000 barrels capacity. The equipment includes four to eight 175 horse-power water-tube boilers, supplied by either natural gas or oil as fuel; one 24 x 48 x 5¾ x 36-inch fly wheel pumping engine; two 18½ x 34 x 6¾ x 24-inch direct acting compound duplex pumps; electric light plant; and sundry auxiliary machinery necessary to make a complete and up-to-date station.

A pipe line operating organization is divided into:

Pipe Line Construction Crew.

Laying 8-inch pipe near Dallas.

1 General Superintendents
2 District Superintendents
3 Superintendent of Telegraph
4 Chief Engineer
5 Superintendent of Tankage
6 District Foremen
7 Gaugers
8 Connection Men
9 Station Engineers
10 Station Firemen
11 Telegraph Operators
12 Station Helpers
13 Line Riders.

In addition to the above, the "Oil Dispatcher," located in the main office, forms an important part of the force. It is his duty to keep a close check on oil received and pumped, and a station will not start pumping without orders from him.

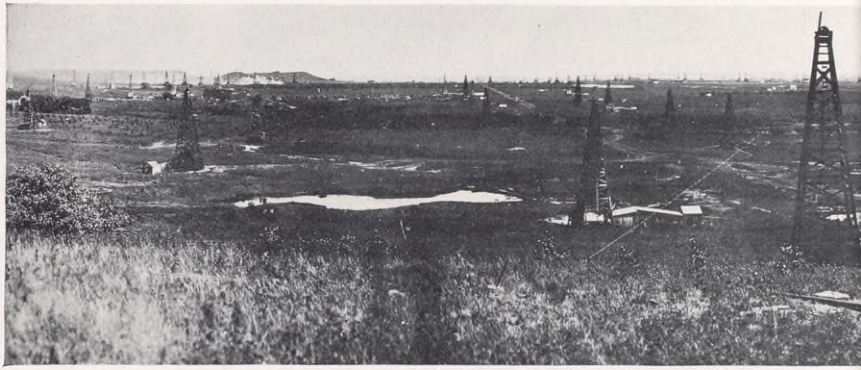
An elaborate telegraph and telephone system is a necessary adjunct to the successful operation of a pipe line. The Texas Company operates for its private use nearly four thousand miles of wire. Each station reports at least once every hour during the day and night, both to the dispatcher and to the station on either side, the amount of oil received and pumped. This report is checked promptly with that of stations pumping to or receiving from, in order to detect any shortage that might occur by reason of leaks or breaks in the line.

The Department Agent supervises an elaborate accounting system which records the various transactions incident to the operation and maintenance of the business, including the "Over and Short," balancing each day and accounting to the hundredth part of a barrel for all oil received and delivered.

The oil producer pumps or flows oil from his wells into wooden tanks, built by him on the lease. The Pipe Line Company connects these tanks to its lines, and as these tanks are filled the pipe line gauger is notified and he runs the oil, gauging and inspecting the same for water and BS in the presence of the producer's representative as he turns the tank on and off the line. The run tickets, showing the gauge and inspection, are signed by both and forwarded to the Pipe Line Office for accounting. As soon as the producer receives his run ticket he considers it as so much money in the bank and can sell his oil at the prevailing market price.

Oil from the producer's tank is received into the pipe line station tanks nearest the district from which it is run. The station reports to the office the amount received from each district. Carefully computed tables for each producer's and station tank are on file in the office and the amount received is checked with the runs. The receiving station pumps the oil to the nearest trunk line station, which in turn forwards it along the line

Spind



Glenn Pool C

Port A

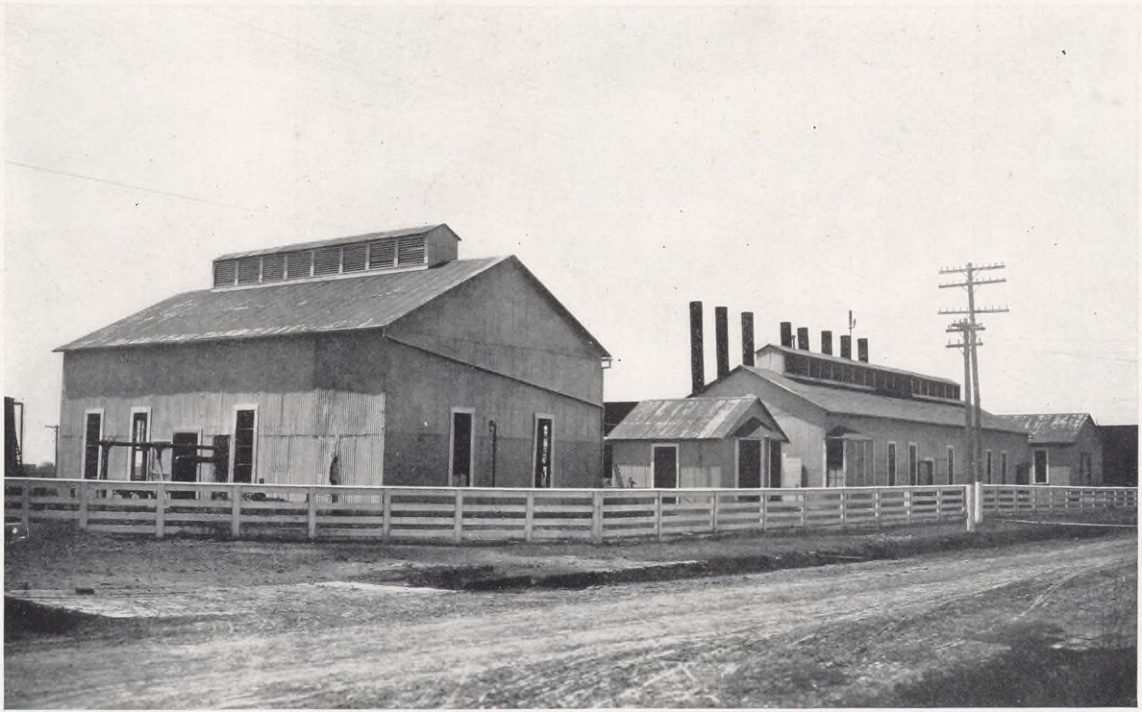
West T

, Texas

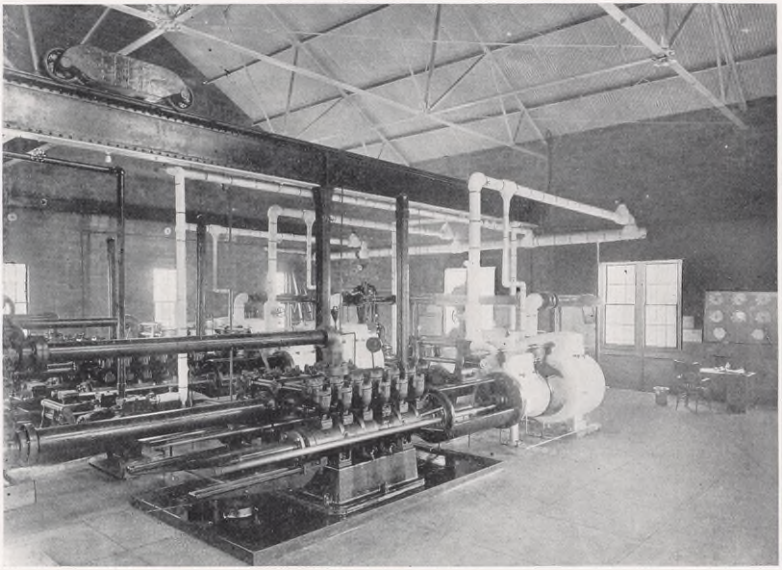
eld, Oklahoma

Works

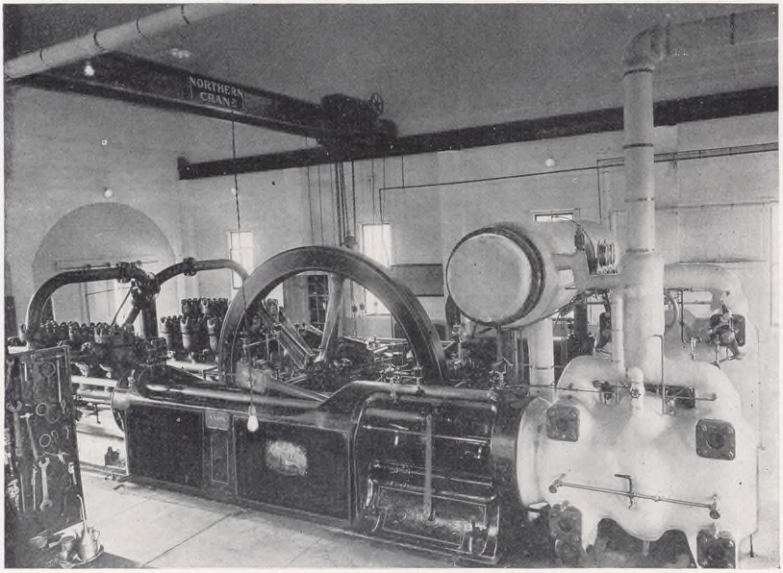
Works



The Texas Company's first Pipe Line Station, Garrison (near Beaumont), Texas, 1902.



Interior View Trunk Line Station Pump House



Snow Fly Wheel Pumping Engine.—Size 24 x 48 x $5\frac{3}{4}$ x 36.

Ditching 8-inch pipe line in the piney woods of Texas.

Ditching pipe line near Port Neches.

from station to station until it reaches the refinery where it is manufactured into finished products, or to an ocean terminal where it is delivered to tank steamers.

Pipe lines are hundreds and thousands of miles in length, traversing all kinds of country, through cultivated fields, across broad prairies, through marshes, under wide and deep rivers, and over high hills. Unlike railroads, pipe lines are laid in nearly a straight line regardless of the topography of the country, and oil is passing through them continuously day and night.

While there is some science in the pipe line end of the oil business, like everything else it consists largely of hard work and constant attention; but with the congenial associates comprising the rank and file of the Pipe Line Department, and the loyal, harmonious, and sympathetic co-operation and support that prevails among them, each one feels that the burden is equitably distributed, and the feeling of goodfellowship that is so pronounced among pipe liners lightens their arduous labors. Every man is ready to respond cheerfully to extraordinary calls at any time during the day or night when the property is threatened by fire or other causes, or when it is necessary to repair breaks in the line or to take care of the various emergencies that often arise.

Brownsville Station. Wagons loaded with Crystalite to go across the Rio Grande to "Constitutionalist" army.

BY THE WAY

The Editor's account last month of the Annual Texaco Picnic at Port Neches has been criticized for not including due mention of a masquerade, which, it is claimed, contributed too much to the gaiety of the picnickers to be rightfully ignored. The Editor apologizes, and here prints the main part of a letter expressing what one correspondent thinks should have been said in the first place:

I am inclosing herewith print of Miss Tangrease, who gave us such excellent service on Texaco Day in dispensing with her knowledge of the popular Tango dance. Her pedigree is as follows: Single, but willing to be married; rough, but has a large heart; bust measurement, 46 inches; waist, 26 inches; ankle, 12 inches; size of shoe, 8½; just a nice height; capacity about four gallons.

I think this will prove a worthy supplement to the descriptive details of the Picnic, and it will also give the female readers of the magazine a splendid idea of the latest importations from Paris in the way of hats and gowns,—and I might state that she is wearing Baby Doll shoes.

Faultless Cargo of Case Oil.—Capt. Jas. Farfor, master of the British steamer *Liddesdale*, which will begin loading its third cargo of case oil out of The Texas Company Terminal Wednesday, June 3, states that the cargo of 174,000 cases he delivered for The Texas Company at Hongkong and Whampoa, China, last November, was the first case oil cargo ever delivered at those ports on which there was no shortage of cases. The master of the *Liddesdale* says that it was a remarkable accomplishment, in that there is almost always a shortage of cases in a cargo of this size, due to faulty checking, but that a cargo never runs over. The cargo in question was checked by three different sets of checkers at the delivery end.

Also, Capt. Farfor states, there was scarcely any breakage and the amount of leakage was almost nothing. The shipmaster says that shortage of cases in a cargo of this size usually ranges from one hundred cases up to, in some instances, a thousand, and that the *Liddesdale* established a record at Hongkong. He states that he delivered a cargo there that was as near being without blemish as it is possible for oil cargoes to be, which may be easily understood by any one caring to note the care taken in packing by The Texas Company.—*The Evening News*, Port Arthur, Texas.

★ ★

Most engineers who practice engineering as a profession believe that the term "engineer" has far too broad a use. . . . With the constantly increasing number of business specialties, new kinds of "engineers" are popping into print, whose connection with real engineering is far-fetched, to say the least. The newest brand to come to our attention is the "rural life engineer," who, according to the Atlanta *Constitution*, has become "a new and vital element in the development of country districts." The *Constitution* says further: "He goes into rural communities, analyzes their life, their pursuits, their pleasures, and their needs, and cures defects and builds character by living among the people." It is explained that this work is being taken up by the Young Men's Christian Association, which sends out country secretaries, or "rural life engineers," men who "are generally college-trained with agricultural educations."

We do not question the good work done by these country secretaries, but to call them "engineers" is overworking a much abused name. Perhaps it illustrates not only a misuse of words but a popular fallacy, very current nowadays, that all the problems of the human race may be investigated, studied, and analyzed with mathematical precision, and solved and remedied and cured by the use of statistics and data with as much ease and certainty as engineering problems are solved, or as the public thinks engineering problems are solved.—*Engineering News.*

★ ★

Why do authors always speak of a smile creeping over the heroine's face?

Perhaps they're afraid if it went any faster it might kick up a dust.—*Penn State Froth.*

We're looking back to see if they
Are looking back to see if we
Are looking back to see if they
Are looking back at us. —London *Bystander.*

The young lawyer pinned a card on his office door: "Will be back in twenty minutes." When he returned he found another item: "What for?" —*Electric Railway Journal.*

"What is a gusher in an oil field?" asked the Old Fogy.

"The man who writes the prospectus," replied the Grouch.—Cincinnati *Inquirer.*

DEPARTMENTAL NEWS

The Managers of the respective Departments have assigned to the gentlemen whose names and addresses are here given the duty of sending to the *Texaco Star*, on or before the twenty-fifth day of each month, reports of new appointments, transfers, removals, resignations, promotions, and other items of departmental news of general interest. Suggestions and information for this purpose should be sent to them before the twentieth day of the month. All are invited to co-operate.

Pipe Line Dept.	A. M. Donoghue, Houston.
Natural Gas Dept.	D. P. Harrington, Fort Worth.
Fuel Oil Dept.	E. B. Joyner, Houston.
Refining Dept.	C. K. Longaker, Houston.
Marine Dept.	W. L. Conover, Houston. A. R. Weber, New York.
Legal Dept.	F. C. Pannill, Houston.
Treasury Dept.	Lee Dawson, Houston.
Comptrollers' Dept.	B. E. Emerson, Houston. J. R. Pouncey, New York
Sales Dept., S. Territory	D. A. Vann, Houston.
Sales Dept., N. Territory	S. Slattery, New York.
Export Dept.	J. B. Nielsen, New York.
Purchasing Dept.	J. E. Byrne, Chicago.
Railway Traffic Dept.	C. S. Young, Houston.
Producers	P. C. Harvey, Houston.

PIPE LINE DEPT.

Price Boone of the Houston Office, who has recovered from an attack of typhoid fever, is now convalescing in Kentucky.

L. J. LaRue, formerly of Gates, Texas, is now in the Houston Office acting as Chief Clerk to J. R. Mayer, Superintendent Telegraph and Telephone Division.

Superintendent E. Auxter at Shreveport, who has been ill with malaria fever, is recuperating at Marlin, Texas.

Peter A. Angenend, of Houston Office, wishes to announce that on June 18 an 8-pound baby girl arrived at his home. Peter was expecting to be "son" struck but nevertheless is satisfied with a girl.

R. K. McFarland, formerly gauger at Humble, Texas, has been transferred to Sour Lake, succeeding J. H. O'Brien, who is now connection foreman at same location.

R. J. Daniel and John B. Rainey, both of the Houston Office, and G. H. Speary, of Beaumont, have each recently acquired a 4-wheel Ford Touring Car. Arrangements are now being made for a three-cornered race.

J. H. Borchers, Telegraph and Telephone foreman, located at Beaumont, has been transferred to Shreveport District.

REFINING DEPT.

L. L. Haddock has been transferred to the Comptroller's Department, as Station Auditor.

H. O. Preston, Assistant Superintendent of the Case and Package Division, sailed for New York June 20, for London. Mr. Preston expects to be absent three or four weeks, and it is hoped that he will be greatly benefited by the trip.

Ralph D. Longley has accepted a position in the Engineering department, Houston.

James A. Ryan entered the employ of The Texas Company on June 1. Mr. Ryan will do stenographic work in the New York Terminal Office.

M. G. English, Civil Engineer at Port Arthur Terminal, resigned his position. Bruno L. Durst has been transferred from the Port Arthur Works to take up the duties of Mr. English.

E. Heichelbeck has been employed as tester at the Bayonne Terminal laboratory.

Fred Daniel, formerly with the Sales Department at Tulsa, has joined the West Tulsa Works office force.

Charles S. Atwell has accepted a position with the engineering corps at Port Arthur Works.

C. Waller, formerly compounder at Bayonne Terminal, resigned May 31.

W. K. Holmes, Assistant Superintendent at West Dallas Works, spent several days in South Texas, visiting the General Offices at Houston, the Port Arthur and Port Neches Works, and Port Arthur Terminal. Mr. Holmes was formerly located at Port Arthur, and was much impressed with the many improvements that have taken place.

F. C. Smith, General Superintendent Port Arthur Works, spent several days in Houston this month. Mr. Smith is always a welcome visitor.

C. C. Hawkins, Superintendent Port Neches Works, recently returned from Bayonne, having spent some time installing the Saturating Plant at that point.

D. L. Lindsay of the Houston Office force is spending his vacation in Galveston.

T. W. Merriman, Foreman of the Roofing Plant, Port Neches Works, has returned after several months at Bayonne Terminal. Walter is busy explaining to the boys at Port Neches the many points of interest around New York.

MARINE DEPT.

Carl Kistler and Edward R. Busch, of the Marine Department, Accounting, left New York June 8 for Tampico, Mexico.

W. H. Crosby, who has been stationed at New Orleans for the last year and a half, the latter part of which period was

spent in supervising the work of converting the Barges *Tuxpan* and *Panuco*, arrived in New York June 19 and will be associated with the Marine Department here, in the Lighterage Division.

TREASURY DEPT.

Guy Carroll, Assistant Treasurer, has just returned from a short vacation at Mineral Wells.

C. V. Webb is now doing the stenographic work for General Creditman Symms, *vice* C. F. Regan, resigned.

COMPTROLLER'S DEPT.

Houston friends were glad to welcome W. E. Green, Traveling Auditor in Northern Territory, who spent part of June on a vacation with his parents here. Mr. Green carries back North with him evidence of the benefits of Heavenly Houston and the Galveston Surf.

E. E. Dattner, for a number of years with the Sunset-Central Lines, has entered The Texas Company's service as bookkeeper in the Comptroller's Department.

T. A. Clark, for several years with The Texas Company and more recently in the Comptroller's Department, on June 1 went with the Producers Oil Company at Sour Lake, Texas.

On June 13 R. C. Craft, formerly with the American Construction Company, came to The Texas Company, succeeding C. V. Webb who was transferred from this Department to the office of H. G. Symms in the Treasury Department.

W. J. Bissonet from the Accounting Department has been added to the force of station auditors. It is understood that Bill has forgotten all about his dairy in the shuffle.

Edwin Ogilvie, for the past five years with the Peden Iron and Steel Company, is an addition to this Department in the capacity of bookkeeper.

Auditors Horrigan and Elliott, having completed the audit of the New Orleans Office, are now working on the Atlanta District.

The general accounting office has with them this month Auditors Moss and Erwin.

E. O. Peck has returned after a two weeks' vacation. From appearances the vacation has done him good.

SALES DEPT. S. TERRITORY

The following letter should be of interest,as it states the opinion of an expert, formed after thorough practical testing:

MUNICIPAL REPAIR PLANT
Hagan Avenue and Perdido Street

New Orleans, La., April 8, 1914.

Hon. J. H. Eastham, Mayor,
City of Shreveport, Louisiana.
Dear Sir:

In reply to your telegram of even date,

"Please advise by wire, our expense, if Texaco Paving Cement Number Fifty Four is suitable for Asphalt Concrete or Sheet Asphalt Street Pavements,"

I have wired you as per enclosed confirmation. [Answering your telegram of even date, will state: Have been using Texaco Asphalt in our Paving work here for several years and now using it exclusively. Consider it equal to any asphalt on the market and surpassed by none in those qualities constituting a first class paving material. Its high percentage of bitumen uniformity and non-necessity for fluxing causes pavements constructed therewith most durable and satisfactory. Unhesitatingly recommend Texaco Asphalt for paving work of any description such as Sheet Asphalt Asphalt Concrete or Filler for brick or blocks.]

In addition to the statements contained in my wire reply, I beg to state, for your information, that I find by practical tests that Texaco Asphalt goes over 33 per cent farther than other well-known brands of Paving Asphalts, and I further find that it requires considerably less heat to reduce Texaco Asphalt to the proper consistency of Asphalt Cement, as compared with well-known brands. I mention these two features, as indicating the real paving merits of this material which we are now using daily in our work in New Orleans, and I feel sure that an investigation of this work will bear me out in the statement that it compares very favorably with any sheet asphalt work heretofore done in the city.

If I can be of any further assistance to you in making a selection of the paving material to be used in your city, do not hesitate to command me.

In this connection, I take the liberty of extending an invitation to your Asphalt Expert to visit our plant here and acquaint himself with our methods of handling and applying Texaco Number Fifty Four Paving Cement.

Yours very truly,
(Signed) A. C. Cronan,
General Superintendent Municipal Repair Plant.

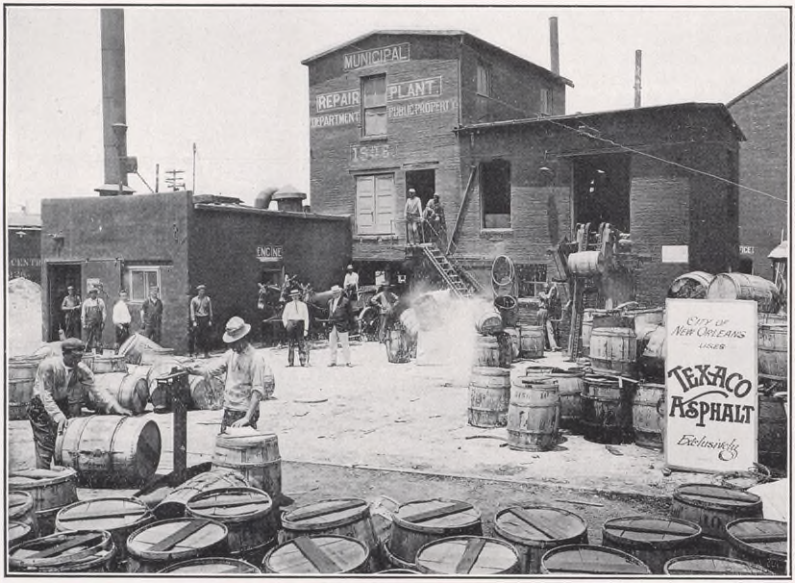
A view of the New Orleans Municipal Repair Plant is shown on the opposite page.

As an example of a general experience confirming the judgment of the New Orleans expert, we give the following letter from the County Judge of El Paso County, Texas:

OFFICE OF COUNTY JUDGE
El Paso, Texas, June 18, 1914.

The Texas Company,
Houston, Texas.
Gentlemen:

Referring to the letter of March 9, 1911, in which I stated that the Texaco asphalt used on



Municipal Repair Plant, New Orleans—Front View.

our roads had proved "first class in every respect after two years' wear," will state that the only modification necessary to express the truth now would be to strike out *two* and insert *five years* in the letter of that date. It is a live asphalt. It holds its strength and color, and doesn't oxidize.

Respectfully,

Albert S. Eylar.

In connection with these testimonials to the excellence of Texaco asphalt, the following affidavit concerning a recent test of gasolines may be interesting as the latest addition to a "cloud of witnesses" to the quality of Texaco gasoline:

State of Alabama, DeKalb County.—Personally appeared before the undersigned, a Notary Public, in and for said county in said State, H. L. Brown, Jr., who being first duly sworn according to law, deposes and says that I drove a seven H. P. Indian motorcycle from Fort Payne toward Birmingham and covered a distance all told of 113 miles and consumed on the trip two gallons of Texas Company gasoline, purchased from R. B. Thomas, a local merchant at Fort Payne, Alabama. Upon my return trip over the same road, I purchased two and one-half gallons from the Drennen Motor Car Company, which company is using some other company's gasoline, I am not positive what, and covered only 83 miles with this gasoline. In purchasing from the Drennen Company I requested the best gasoline it had in stock and with the above stated results. And further saith not.

Subscribed and sworn to
before me, this 11th day of
June, 1914.

Chas. M. T. Sawyer, H. Lee Brown, Jr.
Notary Public.

Effective July 1, the following changes will be made in the New Orleans District sales force:

W. W. Crane, City Salesman,—to Agent New Orleans.

Rene Trahan, Cashier, New Orleans Station,—to Agent Meridian, Miss.

Rufus Oury, Shipping Clerk, New Orleans Station,—to Agent Laurel, Miss.

P. H. Wilson, Agent Laurel, Miss.,—to Agent Jackson, Miss.

R. W. McLaurin, Agent Jackson, Miss.,—to Salesman, with headquarters in New Orleans.

J. T. Downs, Agent Alexandria,—to Mechanical Engineer, with headquarters in New Orleans.

Jas. Benzie, Cashier, Filling Station No. 2, New Orleans,—to Specialty Salesman, New Orleans.

Herbert Smith, Clerk and Warehouseman, Alexandria, La., station, resigned June 1 and was succeeded by A. L. Pricket of the Shreveport station.

J. C. Brennan, formerly of the Ames-

ville Terminal, Refining Department, has succeeded Mr. Pricket as Clerk and Warehouseman at Shreveport.

The New Orleans District will miss Salesman B. F. Johns and Chief Accountant G. M. Worthington, transferred to Atlanta District as General Assistant and Chief Clerk, respectively, but we feel sure they will give a good account of themselves in their new positions.

G. W. Lee is the newly employed Agent at Alexandria, La.

Walker Jones is the new Cashier, Auto Filling Station No. 2, New Orleans.

Craig Harris, of the Roofing Division, has returned to New Orleans after spending 90 days in the El Paso and Pueblo Districts. New Orleans District should easily lead in roofing sales from now on.

President Lufkin's son Chauncey was a welcome visitor in the New Orleans District Office last month.

On Saturday, June 20, the employes of the New Orleans District Office, New Orleans Station, Harvey Station, and Amesville Terminal chartered the steamer *Fairhope* for a trip across Lake Pontchartrain and picnic at Mandeville.

General Assistant J. A. Gray, of Central American District, returned to New Orleans on June 23 from a trip over Central American Territory. He reports that Texaco brands are becoming well known in that territory, and his statement is substantiated by the orders he sent in.

W. W. Allen has been appointed traveling salesman for North Georgia, headquarters Atlanta, succeeding M. A. Dyer, resigned.

R. T. Hubbard has been appointed traveling salesman, headquarters Charleston.

Arrangements have been made with I. C. Cross to handle the business of The Texas Company at Chester, S. C., on a commission basis. This station was formerly handled by W. K. Boleman.

Z. V. Croom, for some time with the Atlanta District Office, has been transferred to Savannah as City Salesman.

H. R. Reed, Clerk, Mobile Station, has been appointed traveling salesman from that point.

S. E. Monroe arrived in Atlanta on June 5, and has been busy helping all over the District, particularly in pushing specialties.

H. T. Wood, Agent at Houston, Texas, has been assigned to South Georgia territory, and will keep the commission stations at Waycross, Albany, Valdosta, Pelham, and Live Oak going right ahead.

J. F. Weller has been appointed Engineer-Salesman, headquarters in Birmingham.

J. O. Woodward, Statistical Clerk, Atlanta Office, has been transferred to the Birmingham Office as Chief Accountant.

T. E. Goodwin, General Clerk, Birmingham Office, has been transferred to the Dallas Office as Chief Accountant.

Salesman Campbell will assume duty on July 1 as Lubricating Assistant, transferring his headquarters from Mobile to Birmingham.

The Birmingham District is pleased to note that Salesman Smithson and Salesman Levy are additions to the Honor Roll for Lubricants for month of May.

"Floor Dressing" Smithson, City Salesman, Birmingham, continues to make a record on Specialty Sales.

The volume of business from the Mobile Station is conclusive evidence that Agent Patterson is still on the job, and demonstrates what hard work will accomplish.

Agent Lucas is to be congratulated on the exceedingly neat appearance of the Birmingham Station, and on the good condition of his teams, wagons, and trucks.

Crater Compound has won another victory in this District,—this time in a great cement plant. The Birmingham Station is now supplying lubricants for the largest coal and iron industry, the largest cement plant, and the largest cast iron pipe works south of the Ohio River.

Agent E. Slate, of Hobart, Okla., endeavored to write his price book into a contract he recently made with a wide-awake merchant. Some items of our products which the merchant could not handle were omitted, but Slate certainly booked him for the "Whole Line."

Agent Thrower and Salesman Potts, of Tulsa, Okla., consider that the Lubricating Banner for Oklahoma District is their personal property, but their ownership of the pennant is questioned by others who are planning to secure the honor for themselves.

Agent Holcomb, of Muskogee, not only

keeps his station in perfect order and polished like a mirror, but embellishes the grounds and fence with handsome flower beds and vines. Muskogee Station is a model of neatness and sets an example for many others.

Salesman W. L. Rinaman, of Altus territory, returned to Tulsa, his former home, and was married to Miss Geraldine Turner, of Tulsa, on June 3. Mr. and Mrs. Rinaman will make their home at Altus, feeling that the promise of prosperity for that region is too good to be missed.

C. N. Turner, Special Roofing Salesman, spent a couple of weeks in the Dallas District this month, and we are pleased to note, from his orders, that he has secured extra business for us which will about double our roofing sales for this month.

In spite of calamity howlers who report bad crop conditions in the Dallas District, our sales for the month of June, particularly in the lubricating line, will be the best in the year and prospects are good for even a better month in July.

In Pueblo District every indication points to better collections, better sales, and generally better business during June than during the same month last year.

The plowing season is practically over in Wyoming and Montana and business in those States is a little quiet, but the tourist season has opened in Colorado which will increase our business and offset any loss in the other States.

Salesman T. E. Wade, with headquarters at Trinidad, Colo., has been transferred to Rocky Ford, Colo., as Agent. He was succeeded by Salesman Trimp, Colorado Springs. Mr. Trimp's territory will be covered by Agent Spence, Colorado Springs, and Salesman Barton, Denver.

Mack Truck A-20 has been transferred from Denver Station to Rocky Ford, Colo., in order to give customers in the Arkansas Valley the best service available.

Bookkeeper H. H. Robb, Pueblo District Office, has secured a "pop" balance on his ledger every month during 1914, with the exception of January. During the year 1913 he was off only twice. This is a record to be proud of.

Each issue of the *Star* is awaited with a great deal of interest in this District, as all employes find it interesting and instructive. We had not realized the greatness of the Company until its inauguration. Each Department's Organization reveals more and more the wonderful growth and stability of our Company, of which we are justly proud.

From Lubricating Division.—It is a pleasure to welcome the following new salesmen into "The Whole Line, With All the Trade, All the Time" sales organization in the South:

W. W. Allen, Atlanta District, Hdq. Atlanta, Ga.
F. B. Byrnes, Dallas District, Hdq. Marshall, Tex.
W. L. Rinaman, Tulsa District, Hdq. Altus, Okla.

J. N. Prewitt, a new lubricating engineer in the Dallas District, spent several days at Houston headquarters familiarizing himself with his new duties. Mr. Prewitt is an engineer of wide experience and takes up his duties with the enthusiasm essential to success in sales work.

J. E. Taylor spent several days at Houston headquarters, familiarizing himself with duties of his new position as Lubricating Assistant in Dallas District, assumed July 1.

P. H. Burger has taken up his new duties as Lubricating Assistant in Houston District.

The Lubricating Division Honor Roll for May:

J. McAdams, Dallas District
W. R. Scott, " "
D. T. Monroe, Houston District
G. R. Graves, " "
B. F. Johns, New Orleans District
R. H. Comeaux, " "
R. W. McLaurin, " "
F. E. Castleberry, " "
A. F. Fegan, El Paso District
H. B. Reeder, " "
M. A. Dyer, Atlanta District
Wm. Reynolds, " "
F. G. Smithson, Birmingham District
C. H. Levy, " "
J. D. Barton, Pueblo District

Under the caption "The Whole Line All the Time" the Lubricating Division expects to publish monthly, after July, the names of those representatives who have sold some of every class of products during the month.

A big concern having plants in four of our Districts, was recently asked by a local concern handling their product (who wished to do us a favor), to what extent, if any, Texaco Products were being used. Their telegraphic answer was:

"Wire date. Buying all lubricants from The

Texas Company since their incorporation. So well pleased with their quality and service always give them refusal of our business."

P. H. Wilson, recently transferred to the Laurel, Miss., agency, reports placing Texaco Lubricants in a big ice plant. All of his predecessors failed to accomplish this, and Mr. Wilson is congratulated.

An 85-barrel lubricating contract closed June 1, as a result of a test of Texaco Products after the competitor had apparently secured the business on a price basis, again illustrates that the only fair comparative basis is quality, and that the one sure method of outreaching competition is for Texaco representatives to place it on a plane of competition in excellence of product. On an efficiency basis Texaco Lubricants, grade for grade, will win over any competition, anywhere, and at any time.

Another big concern whose contract calls for a minimum of 120 barrels lubricants, is so well satisfied with Texaco values as compared with competitive values, that N. H. McLaurin reports revising the entire contract,—putting a number of high grade products, at high grade prices, in place of cheaper products.

On May 24 Agent J. K. Sullivan, Beaumont, Texas, closed a 162-barrel lubricating contract with a concern he has been steadily after for six months.

Superintendent W. H. Wagner is the recipient of many congratulations on his success in closing one of the largest lubricating contracts of the year.

F. H. Sullivan (Houston District) continues to set the pace in the District as a Specialty salesman.

L. N. Young (Houston District) on June 24 made a "clean-sweep" in Port Lavaca, Texas, with Texaco Floor Oil. His mind has evidently been made up to win F. H. Sullivan's laurels as a Specialty Man.

D. T. Monroe (Houston District) has a start on other salesmen and agents in having already secured orders from various School Boards for Liquid Wax Floor Dressing. Now is the time to get busy with the School Boards, Colleges, etc. They use a world of Floor Dressing and Texaco Liquid Wax has no peer. Get your share of this business and help keep up averages during the dull summer months.

"A" SALESMAN

When a train pulls in and you grab your grip
And the hackman's there with his frayed-out whip,
You call on your man and try to be gay
And all you get is "Nothing today,"
Then you're a Peddler,
By gad, you're a Peddler.

When you get in town and call on your man,
"Can't you use any, Bill?" "Why sure I can,"
You go over his stock with a rough sort of count
And "Bill" presently says, "Send the usual amount,"
Then you're an Order Taker,
By gad, you're an Order Taker.

When you travel along and everything's fine
And you don't get up till half past nine,
When you see each concern and talk conditions
And write it all home with many additions,
Then you're a Traveling Man,
By gad, you're a Traveling Man.

When you call on your trade and they talk "hard times,"
"Lower prices" and "decided declines,"
But you talk and you smile, make the world look bright,
And send in your orders every blamed night,
Then you're a Salesman,
By gad, you're a SALESMAN.—*The Mixer.*

SALES DEPT. N. TERRITORY

Effective at once, the Organization of Sales Department, Northern Territory, will be modified as follows:

Mr. Harry Tipper, Manager of Advertising Division, is added to the Staff of Northern Territory.

C. E. Woodbridge,
Sales Manager.

Dated, June 19, 1914.

New salesmen in the New York District, assigned to various territories in New York and New Jersey:

F. K. Woodruff	J. E. Smith
A. G. Taylor	A. Perrine
C. B. Leggett	B. A. Sheridan

Resignations in the Sales Department:

R. W. Caswell
G. A. Pope, Jr.

T. A. Bridges has been added to the New York District staff, as correspondent.

An interesting coincidence occurred this month (June) in the marriage of E. O. Woodruff being immediately followed by the marriage of F. K. Woodruff.

K. T. Kirk has resigned as Operating Inspector, Boston District, and Frank K. Wade has been appointed in his place.

A. L. Kennedy is auditing stations in the Boston District. We are glad to have Mr. Kennedy with us again.

Geo. R. Rowland has been appointed Chief Engineer of the Lubricating Division of the Northern Territory in charge of a staff of engineers consisting of:

E. Nielsen
J. J. Simon
W. H. Openshaw
J. A. Hansgen
H. Cooper

Frank J. Shipman, who is in charge of Government business, has spent the greater part of his time for the last month in Washington.

F. H. Knight, who for the past eighteen months has been working on special motor manufacturers' accounts, has been transferred to the Boston District and will have the territory around Worcester, his home town. The motor manufacturers' development will be taken care of by special men in each District.

The Philadelphia District is running a special Crater Compound campaign in the Anthracite Region, and Mr. Cunningham reports that on a recent visit to that region he found everyone who was using Crater Compound very enthusiastic. He states there is only one thing the matter with this material,—it is practically indestructible and where four or five barrels of Black Oil were formerly used as a rope dressing, only one barrel of Crater Compound can be sold. As we were not getting the Black Oil business, and as we want to get in the District, we shall let the Crater Compound get a secure hold on the ropes and gears.

The trans-Atlantic flier *America*, which was launched and christened at Hammondsport, N. Y., had a successful trial in the shop and in actual flight, using Texaco Motor Oil Special for two 100 H.P. motors. Previous to using the Texaco Motor Oil Special, two competitive brands were used with the results that the bearings were burned. The Texaco Motor Oil proved so efficient that supplies were ordered for the starting station in Newfoundland and for the supply stations at the Azores and in Spain.

Texaco Motor Oil E. H. is being used on a 24-cylinder, 1,800 H.P. special engine in a high speed racing boat. This boat is named *Disturber IV*, and is being sent to England to bring back a certain prize which was taken away from America some little time ago. Full details regarding this boat and its operation will be furnished for a later issue. The boat has a theoretical speed of 125 miles per hour. O. J. May of our Chicago office has been honored with an invitation to go on the trial trip of this boat on Lake Michigan. If he returns after being taken through the water at such a violent rate of speed, we shall look for an enthusiastic report regarding the action of Texaco Motor Oil E. H.

U. S. NAVY CONTRACT

The contract for supplying the U. S. Navy with all of the lubricating oils used by the fleet on the Atlantic and Pacific Coasts has been awarded to The Texas Company on the following basis:

Item 1 Texaco Neptune Marine Engine Oil.
For use on reciprocating main engines where oiling is done by hand.

Item 2 Texaco Ursa Oil.
For use on bearings of main engines with forced feed systems, and for main turbine engines of large ships.

Item 3 Texaco Cetus Oil.
For use as turbine oil for torpedo boat flotilla.

Item 4 Texaco Pinnacle Mineral Cylinder Oil.
For swabbing piston rods aboard ship and for steam cylinder lubrication ashore.

Item 5 Texaco Spica Oil.
For ice machine oil and for pneumatic tools.

Item 6 Texaco Cetus Oil.
For dynamo oil.

Item 7a Texaco Ursa Oil.
For heavy motors of submarines, aeroplanes, and launches.

Item 7b Texaco Alcaid Oil.
For gasoline motors in launches, ashore, and on special ships.

Item 7c Texaco Cetus Oil.
For engines of the Diesel type in submarines, for light motors, and as a general lubricant about a ship.

These various items will represent in the neighborhood of 700,000 gallons of oil.

Our business with the U. S. Navy commenced in 1906 when we supplied Circulation Oil Heavy for the forced feed engines of the U.S.S. *Delaware*. This oil was extended to the *New Hampshire* and to a number of other ships. Finally, in 1911, we obtained a contract for this oil. In 1912 we were awarded half of the contract for supplying the ships on the Atlantic Coast, the contract including Texaco Neptune Marine Engine Oil, Texaco Cetus Oil for turbines, and Texaco Circulation Oil Heavy. In 1913 we retained the Texaco Cetus Oil, and secured a contract for Texaco Dolphin Oil for the main engines. During the last two years we have supplied our Texaco Ursa Oil for a considerable number of ships on special requisition. We have also had tested out at the necessary points our Texaco Alcaid Oil, Texaco Spica Oil, and Cylinder Oils. This year we were the successful bidder for both the Atlantic and Pacific Coasts.

All of the oils enumerated above have been tested under very severe conditions and accepted, and we expect to be able to report that the ships which have

formerly been lubricated with competitive oils are running on a higher degree of efficiency with our oils, and that our entire list on this contract will be as favorably known at the end of this year as are our oils, Texaco Neptune, Texaco Cetus, and Texaco Ursa.

In addition to Lubricating Oils, The Texas Company has been awarded a contract for supplying the U. S. Navy with Fuel Oil for the fiscal year 1915, this being the fourth time that we have been the successful bidder for their annual supply. The probable deliveries will be upward of one-half million barrels, of which approximately 390,000 barrels will be required for the Naval Storage Tanks at the following points:

Boston, Mass.	Charleston, S. C.
Melville, R. I.	Key West, Fla.
Norfolk, Va.	Guantanamo, Cuba

Other deliveries will be to Naval vessels and to supply ships calling at our Port Arthur works, and by tank cars for use in a number of Navy Yards along the Atlantic Coast. Our contract calls also for delivery of Gas Oil at a number of the Yards for use in sub-marine vessels having Diesel Engines.

We have secured from the Navy an award for delivery of Gasoline at practically all of the important Navy Yards from Maine to Texas. The Department estimates the total amount of this contract at $45,000, or about 75 per cent of their total requirements for the six months ending December 31, 1914. We have also enjoyed this part of Uncle Sam's business for the past several years.

Kerosene requirements and Petroleum Spirits (Turpentine Substitute), of which the Navy uses large quantities, are among the other contracts we have with several of the Yards. Texaco Spirits or Texene meets the standard Navy specification for Petroleum Spirits.

Another important contract we have is for the annual supply of Kerosene in drums for the Panama Canal, estimated at 140,000 gallons.

Among several of our annual contracts with the War Department is one for delivery of Gasoline and Kerosene, or both, at 41 Army Posts along the Atlantic Seaboard. We have been supplying many of these Posts for the past three years.

The Commanding Officer of the Springfield, Mass., Armory has just advised us of the acceptance of our proposal for supplying Fuel Oil for the coming fiscal year, our contract with this Armory for the fiscal year 1914 having just been completed.

Rock Island, Ill., is one of the first Central Western Arsenals we will supply with Fuel Oil, our newly awarded contract being for a year from July 1. We also secured some of the Lubricating Oil and Grease items at this Arsenal.

The Depot Quartermaster, Washington, D. C., has contracted with The Texas Company for several years for the Gasoline and Kerosene required at the various Forts and Barracks in and around Washington.

L. N. Denniston, of The Travelers Insurance Company, in a paper entitled "The Training School and Its Place in Corporate Management," read at the First Annual Convention of The National Association of Corporation Schools, says:

"Following the prompting of ethical and philosophical readings, combined with experimental psychology, I began to see for myself that real salesmanship does not depend upon inborn talent, but upon plain rugged honesty; and that only he could be a true, successful salesman who became thoroughly convinced that he was in the right business, for the right company, whose product was worthy of his loyal support. Operating from such a basis, the salesman is controlled by a desire to tell everybody about his goods, and being convinced as to their quality he convinces others. He is so full of the good of his product that he has no time to discuss the points of his competitor's, and when his opinion is sought he honestly states that all that he knows is good, and immediately reverts to the presenting of added reasons why his goods, his company, and his service give satisfaction."

From Chicago District.—The name of the newest thing in Texaco boosting realms is the Crater Compound Club, known locally as the "Three C Club."

This is some club! An aggregation of enthusiastic live-wires connected with the sales and engineering departments of the Chicago District. The adjective "live-wires" goes. Ask Mr. W. F. Parish. He's a member. Here is how it happened: The club was at the height of one of its fiery sessions. Mr. Parish happened to be in the vicinity of the meeting room and couldn't resist mixing with such a bunch of energy. He looked in. That was all. He had no sooner put in his appearance than he was roped, thrown, and hog-tied by Mr. O. J. May, who nominated him an honorary member. The nomination was carried with a unanimous howl, and he was duly elected an honorary member.

The Three C Club had its origin on May 16, after one of the weekly meetings of the salesmen of the Chicago District. A committee was instructed to report a set of rules and by-laws. At the next meeting the committee reported a full membership list and by-laws, which were adopted. The following were chosen to administer the affairs of the club for the ensuing year:

Moderator	O. J. May
President	C. B. O'Hare
Vice-President	M. A. Macomber
Sec'y.-Treasurer	Dudley J. Stevison

The Moderator was empowered to act as an executive committee and to have deciding vote.

The club is a social organization designed to bring salesmen together on a plane of equality. It is assumed that the man who hasn't technical inclinations and who is wont to be reticent, even to his ultimate undoing, at purely commercial meetings, will be inclined to open up and give the man who happens to be better versed on the uses of this oil or the disadvantages of that oil a chance to do him some good.

There will be a sprinkling of humor and an exchange of anecdotes that will tend to loosen every one up. Tales of each man's daily experiences will go the rounds, and for the time being the efficiency sheet will be forgotten. There will

be a program of interesting events,—trips to manufacturing plants, monthly dinners, debates, lectures prepared and read by each man, and various other forms of substantial educational enjoyment. The club meets each week after the regular salesmen's meeting. It is self-sustaining and promises to be beneficial as well as enjoyable.

And, by the way, as to any further applications for honorary membership, the elections are closed. Form your own club, gol' darn ye!

The Three C Club had its first outing Saturday, June 13. The trip included a visit to the State Penitentiary (just a pleasure visit), an inspection of the Sanitary District's power plant at Lockport, and a spin down the I. & M. Canal to our refinery. It was some trip. Twenty-four in all, piloted by O. J. May, left Union Depot on the Chicago & Alton at 9 A. M.

Through the influence of our Mr. Akin, Agent at Joliet, the crowd was extended every courtesy at the Penitentiary, which included a great deal more than is usually accorded visitors. The Club had lunch as guests of the warden, and departed on the interurban for the Sanitary District's power house, south of Lockport.

Here was the scene of Mr. May's earlier activities. He was once superintendent of the immense plant. The boys owned the place during their short stay. The entire plant, including the gigantic turbines, are running on Texaco oils, and after the boys saw what it was doing there their faces assumed an expression which implied: "Wait until I get back in my territory next week. Good night! Wow!!" There was as much energy in the hearts of that crowd when they left that power house as there was in the awful torrent of water that swept over the bear trap dam.

From the Sanitary District's plant the Club was taken up the I. & M. Canal to our refinery. Poor Mr. Dodge! All the pent up enthusiasm of the boys let go in a volley of eager, irrepressible questioning. Starting at the still room and winding up at the barrel washing stand outside the compounding house, it was one continuous series of interrogations. Gravity, beaume and specific—fire—flash—heavy and light—comparisons galore, and always the hopeful reasoning for Texaco. Then our big truck and a pleasure car backed up to the loading platform and the boys scrambled in, to make the 3:52 train back to Chicago.

When the crowd was about a half mile away Mr. Dodge took a deep breath. It was a sigh of relief, not at the departure of the boys, but at the ceasing of the awful third degree they put him through. He had parted with all the lore of the refining industry. He was plied so thick and fast and he answered so many questions, that if they were all in legible print, indexed in proper shape, it would be a veritable catecheism on oil.

It was a wild, raving crew that started out after business that next week. They were after gore, real red gore. They were all in their fighting togs and armed to the teeth. It's a wonder there weren't some casualties. And—poor Mr. Dodge! Had anything dreadful occured he would have been in a bad way. Why? He would have been deemed an accessary before the fact. Had he not furnished the weapons?

The School of Instruction for New York Office employes and salesmen held its final meeting before adjourning for the summer on June 19. A paper entitled "Grease," the fourteenth lesson, was read by Mr. Parker. The attendance at this meeting was fifty-three,—about the average. This last paper and all previous papers are being rewritten to incorporate many points brought out by the discussions, and will be used as a basis for the Correspondence School lessons.

Miss M. H. Cook, formerly with the Norfolk Office, has been appointed as an additional assistant to Dr. Canfield in the Texaco Correspondence School.

EXPORT DEPT.

The following vessels, carrying over 13,000,000 gallons of oil, loaded at Port Arthur during the month of June for account of Export Department:

S.S Mecklenburg	*S.S Hyrcania*
S.S Cape Antibes	*S.S Batoum*
S.S Lorenzo	*S.S Eastern City*
S.S Rosalind	*S.S Origin*
S.S Liddesdale	*S.S Lucellum*

In addition to this some quite important shipments were made from other ports.

C. Chasegreen sailed from Montevideo on June 12, via England, for New York.

Ben F. Wright, having completed his study of conditions in Santo Domingo, is now making a trip through the republic of Hayti.

Louis Granados has been transferred from New York to Porto Rico.

We send a newspaper clipping received from our Hongkong representatives, giving an interesting account of an audacious piracy. As piracy, in the minds of a great many, is a thing of the past, it would be interesting to reprint this article, or part of it in the *Star*.

[The article from The Hongkong Daily Press was set in type, but lack of space compels its postponement to next month.]

PURCHASING DEPT.

Manager A. F. Colling sailed for Europe on June 20, to be gone several weeks.

SUGGESTIVE INDEX OF CURRENT ARTICLES

THE MAIN INTEREST IS INDICATED BY CLASSIFICATION OR BRIEF COMMENT

Journals cited are gladly loaned, if in our library, to persons connected with the Company. The journal or journals called for will be sent by return mail, unless in the hands of some one who has made a previous request—and in the latter case, as promptly as possible. Please give full and exact mailing address.

EXECUTIVES Depreciation, Intangible Values, and Rates, by Willard H. Lawton, C. P. A.—*The Journal of Accountancy*, May 1914.

English and American Business Methods, by Theodore H. Price—*The Outlook*, June 27, 1914.

Economy of Kerosene Fuel for Motor Trucks—*The Motor Truck*, June 1914.
An important question broadly considered.

Government Completes 1913 Oil Statistics—*Petroleum Age*, June 1914.
Tables of production by States for 1912 and for 1913, giving quantity in barrels, value, average price per barrel.

PIPE LINE Arteries of the Oil Industry—*The Annallist*, June 8, 1914.

California's New Wonder Well—*Petroleum Age*, June, 1914.

NATURAL GAS Natural Gas Men in Convention—*Oil and Gas*, June 1914.
Ninth annual meeting in St. Louis.

REFINING Labor and Other Costs in Manufacturing, by F. E. Cardullo—*The Iron Age*, May 28, 1914

Preventable Losses in Factory Power Plants. V.—The Steam Piping and the Engines, by D. M. Myers—*The Engineering Magazine*, June 1914.

New Refining Process Interests England—*Petroleum Age*, June 1914.
"German chemist demonstrates method for obtaining motor spirits from heavy petroleum."

COMPTROLLER'S Recent Advances in Expense Distribution, by Sterling H. Bunnell—*The Iron Age*, May 7, 1914.
Difficulties of a sliding scale. When "unearned burden" should be carried into cost of factory product.

SALES "Talk Business" by Daniel Louis Hanson—*System*, June 1914.
Especially worth reading for every salesman.

EXPORT First National Foreign Trade Convention—*Electrical World*, June 6, 1914.
Held in Washington, D. C., May 27-28, under auspices of the American Manufacturer's Export Association, the Pan-American Society of the U. S., and the American Asiatic Association.

PURCHASING Conservation of Effort in Purchasing, by E. F. Whitaker (Purchasing Agent J. H. Williams & Co., Brooklyn, N. Y.)—*The Iron Age*, May 21, 1914.
A system of records enabling the purchasing agent to keep in touch with conditions outside of his office.

RY. TRAFFIC Railway Track Scale and Carload Weighing, by Herbert T. Wade—*The Engineering Magazine*, June 1914.

Waste of Small Loads in Big Cars—*The Annalist*, June 29, 1914.
Traffic Experts discuss a new plan.

GENERAL President of The Texas Company, An Optimist—*Petroleum Age*, June 1914.
The Practical Introduction of Efficiency Principles. VI. Time Study, by L. E. Knoeppel—*The Engineer ing Magazine*, June 1914.

Corporations and the Common People—*The Journal of Accountancy*, May 1914.

Power from the Sun, by Frank Shuman—*The Engineering Magazine*, June 1914.
Description of the sun-power plant at Cairo, Egypt, its construction, operation, and efficiency.

Eight Minutes' Commonsense Exercise For the Busy Man, by Wm. J. Cromie—*The Outlook*, June 27, 1914.
Illustrated by photographs. First of three articles; the other two—the same "For Nervous Women" and "For the Growing Child."

BOOKS.

The New Business, by Harry Tipper, Advertising Manager of The Texas Company, President Advertising Men's League of New York.

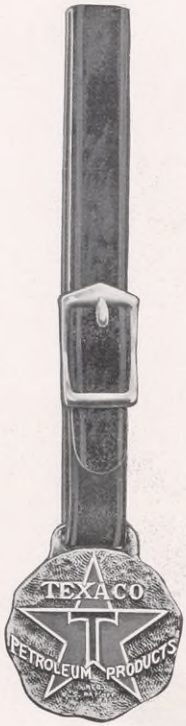
Advertising—Selling the Group, by John Lee Mahin, President of the Mahin Advertising Co., Chicago.

These books belong to the *Associated Advertising Clubs of America;* the copyright is in their name; every dollar of profit goes to the educational work of all the clubs. Price of each volume $2.

"Mr. Mahin's book is a comprehensive survey of the organization of modern advertising through which it serves its great function of 'Selling the Group.' Mr. Tipper's book is a comprehensive survey of the relations which advertising and selling bear to the whole modern commercial organization and properly bears the title of 'The New Business.'"

PRIZE CONTEST

WE want to get more ideas for advertisements. The number seems to have fallen off with the advent of summer. We know that thinking is a little more difficult and that distractions are many at this time of the year. Therefore, we want to reward those who can spare us a little of their time.



We will give two prizes—a gold and a solid silver watch fob for the best and next best idea sent to us. This competition is open to everybody. We expect everybody to come into it. Remember, you don't have to be able to draw a pretty picture to win—the idea counts.

Send in as many as you want to. Try for this prize. It makes a handsome showing.

ADVERTISING DIVISION

For Care-free Motoring

TEXACO MOTOR OIL

For Increased Power

TEXACO MOTOR OIL

For Economy

TEXACO MOTOR OIL

For Dependability

TEXACO MOTOR OIL